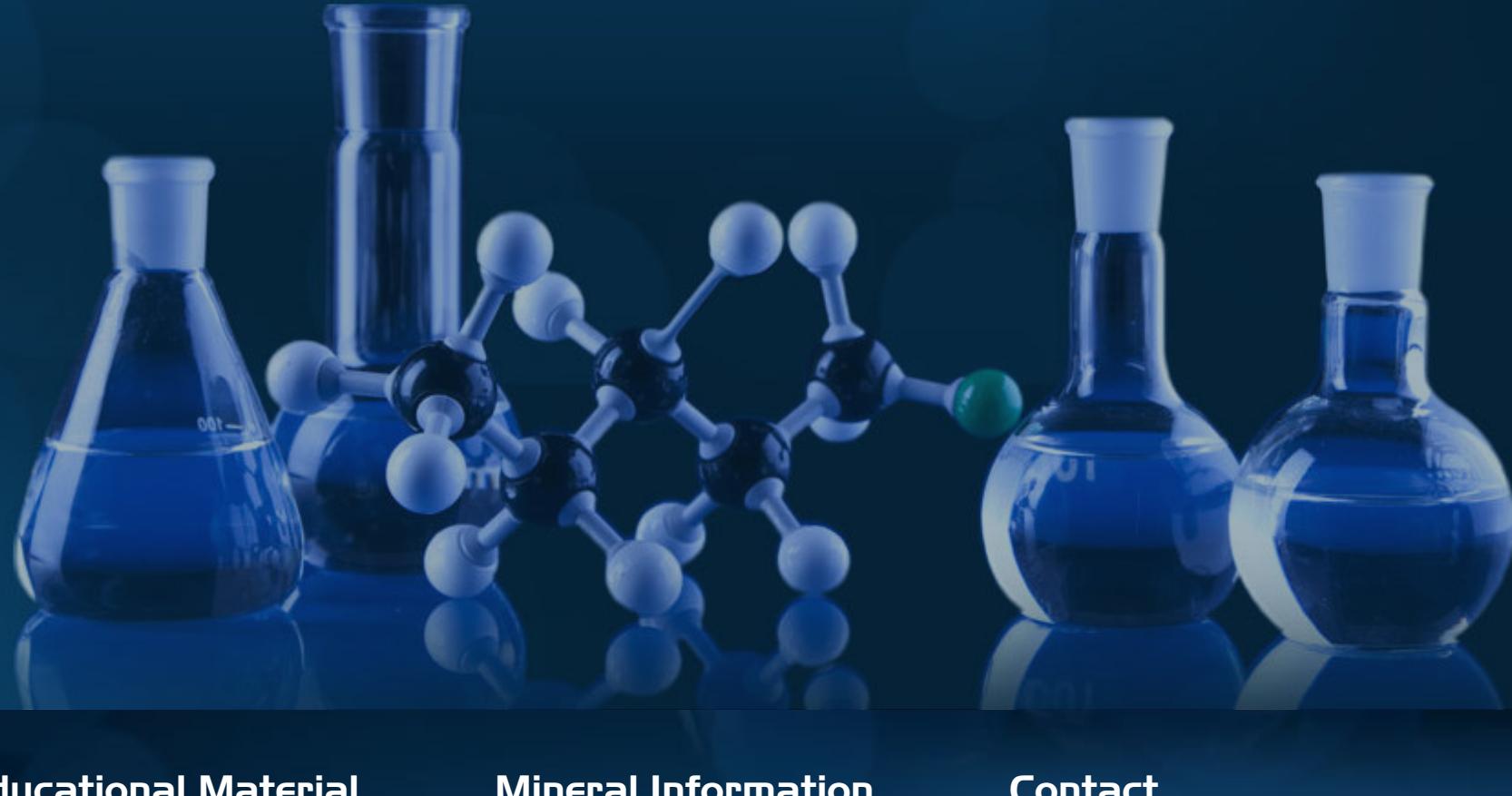




## ARL is an Authority on Nutrition and the Science of Balancing Body Chemistry Through Hair Tissue Mineral Analysis!

Hair Tissue Mineral Analysis



[home](#)    [About](#)    [Hair Analysis](#)    [Lab Profile](#)    [Educational Material](#)    [Mineral Information](#)    [Contact](#)

# Selenium

[Home](#) » [Mineral Information](#) » Selenium



### Sources Of Selenium

Seafood -	oysters, tuna, mackerel, herring, lobsters, scallops, shrimp, pike, trout, carp, cod, flounder, salmon
Meats -	liver, kidney, heart, beef, lamb, egg, pork
Nuts/seeds -	brazil nuts, cashews, peanuts, walnuts
Grains -	wheat germ and bran, brown rice, barley
Miscellaneous -	brewer's yeast

### Roles In The Body

- At the molecular level selenium acts as a sulfhydryl agent, anti-oxidant (glutathione peroxidase), and as a synergist to vitamin E.
- At the cellular level selenium is involved in the destruction of peroxides, protection of cell membranes, as an electron transfer agent, and in glutathione metabolism.
- Selenium helps maintain the circulatory system, digestive organs, and reproductive system. It is also involved with heavy metal detoxification.

### Functions Of Selenium

Circulatory -	needed for the heart muscle
Excretory -	protection from toxic metals
Respiratory -	involved in oxygen transport
Digestive -	intestinal homeostasis
Nervous -	protection from mercury and cadmium
Reproductive -	protection against birth defects
Endocrine -	synergistic with the sex hormones
Blood -	stabilizes the red blood cell membranes
Integumentary -	helps maintain hair, skin and nails
Immune -	enhances immune system in animals
Metabolic -	lipid and sulfhydryl metabolism; may prevent liver necrosis
Detoxification -	helps remove mercury, cadmium, silver, arsenic and peroxides

### Nutrients That Are Synergistic With Selenium

Metabolic -	vitamin C, vitamin E, glutathione
Absorption -	amino acids, peptides, proteins

### Antagonistic Nutrients

Metabolic -	silver, arsenic, mercury, cadmium, titanium
Absorption -	copper, mercury, silver, sulfate

### Hair Analysis Notes

#### High Hair Selenium:

- can be due to the use of shampoos containing selenium
- may indicate a loss of selenium through the hair

#### Low Hair Selenium:

- may be due to dietary deficiency, which is relatively common, especially among those who eat refined foods

### Reasons For Selenium Supplementation

Selenium may be given to help prevent or correct cadmium, mercury, or arsenic toxicity. Selenium is an anti-oxidant and may be given to help protect against free radical damage. Note that excessive selenium supplementation may be toxic.

In addition, there is extensive research presently being conducted on the functions of selenium and iodine with regard to thyroid function and it is becoming clear that there is an interaction between the two that should be noted.

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The preceding statements have not been evaluated by the  
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This information is not intended to diagnose, treat, cure or prevent any disease.*

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